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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Fluid and Electrolytes

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|  |  |  |  |  |  |  |  |  |  |  | 1  H |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | P |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 2  H | Y | P | O | P | H | O | S | P | H | A | T | E | M | I | A |  |  |  |  |  |  |
|  |  |  |  | 3  H |  |  |  |  |  |  | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | Y |  |  |  |  |  |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | P |  |  |  |  |  |  | T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | E |  |  | 4  H | Y | P | E | R | M | A | G | N | E | S | I | U | M |  |  |  |  |  |  |  |  |  |
|  |  |  |  | R |  |  |  |  |  |  | E |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 5  H | Y | P | O | C | A | L | C | E | M | I | A |  | 6  H |  | 7  H |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | H |  |  |  |  |  |  | I |  |  |  | Y |  | Y |  | 8  3 |  |  | 9  S |  |  |  |  |  |  |  |
|  |  |  |  | O |  |  |  |  |  |  | A |  |  |  | P |  | P |  | 0 |  | 10  P | O | T | A | S | S | I | U | M |
|  |  |  |  | S |  |  |  | 11  H |  |  |  |  | 12  H |  | E |  | O |  | 4 |  |  | D |  |  |  |  |  |  |  |
|  |  |  |  | P |  |  |  | Y |  |  |  |  | Y |  | R |  | T |  | 5 |  |  | I |  | 13  1 |  |  |  |  |  |
|  |  |  |  | H |  |  |  | P |  |  |  |  | P |  | K |  | O |  |  |  |  | U |  | 3 |  |  |  |  |  |
|  |  |  |  | A |  |  |  | E |  | 14  H | Y | P | O | M | A | G | N | E | S | I | U | M |  | 2 |  |  |  |  |  |
|  |  |  |  | T |  |  |  | R |  |  |  |  | K |  | L |  | I |  |  |  |  |  |  | 1 |  |  |  |  |  |
|  |  |  |  | E |  |  |  | C |  |  |  |  | A |  | E |  | 15  C | A | L | C | I | U | M |  |  |  |  |  |  |
|  |  |  |  | M |  |  |  | A |  |  |  |  | L |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 16  F | L | U | I | D | V | O | L | U | M | E | D | E | F | I | C | 17  I | T |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | A |  |  |  | C |  |  |  |  | M |  | A |  | S |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 18  H | Y | P | E | R | T | O | N | I | C |  |  | O |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  | A |  |  |  | 19  H | Y | P | E | R | N | A | T | R | E | M | I | A |  |  |  |  |  |
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| **Across**  **2.** CNS Depression, Muscle Weakness,Seizure, Osteomalacia  **4.** Lethargy,drowsiness,Decreased Pulse/Bp,Muscle Weakness, Diminished DTR,N/V  **5.** Chvostek's Sign, Trousseau's Sign, Tetany, Seizures,Fatigue  **10.** 3.5-5  **14.** Confusion,Tremors,Hyperactive DTR, Increased Pulse/BP, Insomnia,Muscle Cramps  **15.** 9.0-10.5  **16.** Loss of Fluids From the Cells and Tissue  **18.** Initially expands and raises the osmolality in ECF( D5 1/2NS & D10W)  **19.** Seizures,Coma,Restlessness,Irritability, Muscle twitching to the point of weakness | **Down**  **1.** Caused by: GI Loss, SIADH, Water Intoxication, NPO Status  **3.** Caused by : Renal Failure, Enemas containing Phosphorus, Chemotherapy Drugs  **6.** Caused by: Renal Failure, Adrenal Insufficiency, Acidosis  **7.** More Water than electrolytes(0.45% NaCl and D5W)  **8.** Phosphorus  **9.** 135-145  **11.** Lethargy,Decreased reflexes, confusion, Bone Pain, Fractures  **12.** Muscle Weakness, cramping, dysrhythmias, Flat/ Inverted T Waves  **13.** Magnesium  **17.** Same osmolarity as body fluid(NS 0.9 NaCl & lactated ringers) |

   HypoKalemia       Hyperkalemia       Hyponatremia       Fluid Volume Deficit       Hypernatremia       Hypocalcemia       Hypercalcemia       Hypermagnesium       Hypomagnesium       Hypophosphatemia       HyperPhosphatemia       Isotonic       Hypotonic       Hypertonic       Sodium       Potassium       Calcium       1.3-2.1       3.0-4.5